to the Allegheny Mountains. We found it on *Rhododendron* flowers. Mr. Dury has it from Virginia, North Carolina and Maryland.

NOTE 18.—*Michthysoma heterodoxum* was found on Black Rock Mountain; first seen at about 3,000 feet elevation and abundant at the top—3,700 feet. As described by Mr. Frederick Blanchard, it is usually found walking up the trunks of oaks, chestnuts and other trees; and from its size, color and form, greatly resembles the large black ant, *Camponotus*. This species again is peculiar to the region previously mentioned.

NOTE 19.—*Cistela marginata,* one specimen taken by Mr. Dury near the top of Screamer Mountain. As remarked by Major Casey (Col. Not., III, p. 166), this species is widely isolated from our other species of *Cistela* and may have to be generically separated. Mr. Dury in a letter adds: "The type is stated to be 12.5 mm. long, this specimen is 14 mm. The elytra are not nearly one half wider than prothorax, as stated in dimensions given for type. The last joint of maxillary palpi does not agree with the form given by Le Conte to separate *Cistela* from the other genera of the family. It must be rare, as I never met with it in Kentucky or Tennessee, nor have I received it in large collections made on Roan Mountain, N. C. Mr. Schwarz says it is found at Washington D. C. It is remarkably active when beaten into umbrella."

MISCELLANEOUS NOTES ON COLLECTING IN GEORGIA.

BY WM. T. DAVIS,

NEW BRIGHTON, STATEN ISLAND, N. Y.

On another page of this Journal Mr. Leng has given an account of our visit to Clayton, Ga., in June, 1909, with particular reference to the Coleoptera collected. Mr. Charles Dury in Entomological News for November, 1909, has also written of the Clayton expedition.

While we were searching for *Cychrus* or capturing tiger-beetles on the steep trail that led up the side of Black Rock Mountain, we

necessarily saw many other insects, and added a goodly number to our collection. Almost the first stone that I turned over sheltered a number of the slow-moving *Stigmatomma pallipes* ants, and in their midst there was a fat and succulent lamellicorn larva about 14 mm. in length. There were a few *pallipes* ants close about it, and attached to the beetle larva there were fifteen ant larvæ in various stages of growth. Most of them were about 5 mm. long, but some measured only about 2 mm. They reminded me of a lot of hungry sucking pigs. I found another lamellicorn larva, evidently of the same species enclosed in its cell under a stone, and the interesting question is, did the workers of *Stigmatomma pallipes* bring the beetle larva to their nest, or did they, after making the discovery, carry their own young or eggs to it. In view of the size of the beetle larva, the latter would seem to be the most probable explanation. Prof. Wheeler states that the larvæ of *Stigmatomma* are not fed by regurgitation, but on pieces of insects, and one of the chief points of interest in this case is the size of the piece.

It is usual to discover paralyzed spiders with the larvæ of *Pompilus* or some allied hymenopterous insects attached to them, but I was surprised upon turning over a stone on the side of Black Rock Mountain to find a large lycosid spider, which was quite active, though it had what was evidently the larva of a hymenopterous parasite firmly attached near the base of its thorax. The spider was so active that it charged and bit at my forceps, and did not seem to be incapacitated in the least by the presence of the larva on its back.

On several occasions when we removed the bark from fallen trees, we discovered a myriopod, evidently belonging to the family Geophilidæ, closely coiled about its eggs, of which there were usually about fifty. We were interested in the fact that the eggs were guarded thus carefully.

The "tumble bug," *Canthon chalcites*, was an amusing insect about Clayton, and we watched many rolling their balls of manure. No doubt the presence of numerous pigs in the mountains contribute much to their support. Often only one beetle rolls the ball, but if there are two, one pushes with its head down and its hind legs on the ball, while the other keeps climbing up on the opposite side of the ball and so pulls it over. The ball is rolled about rather

aimlessly, until a suitable place is reached where it may be buried. One pair that I followed, after doubling on their path, finally concluded to bury the ball in the soft sand surrounding the imprint of a pig's foot into which their treasure had fallen by accident. They however, could have got it out again if they had not been satisfied with the conditions. This pair and their ball was followed by three small flies (*Borborus geniculatus* Macq.), which always kept at a respectful distance until the ball was about to be buried, when they lit upon it, and no doubt profited thereby, for Prof. C. W. Johnson has informed me that the larva of this fly lives in decaying matter.

In this case, also, I noticed an *Onthophagus pennsylvanicus* present, as I did on other occasions about the balls made by *Canthon*.

The balls are often lost by the owners thereof. One I found in a spring on Black Rock Mountain, where we occasionally got a drink. It had rolled down the steep side of a ravine and had no doubt taken the beetles along with it into the water, much to their surprise. They hang closely to their treasure, and on one occasion I saw a ball rolling at great speed down a steep clay bank bearing the beetles along, bumpty-bump, over all obstacles. On another occasion one of the beetles was detached as the ball bounded down a steep incline, and it never found it again but flew away in another direction. This perhaps accounts for some of the cases where I found but one beetle rolling a ball.

Sometimes the balls were lost in the pot-holes in the clay where they were too deep for the beetles to get them out again. On such occasions I sometimes found that the little *Onthophagus* had profited thereby, and had drilled them with its small tunnels, for they were suitably enough located for them.

On our way up the mountain we often saw the showy robber-fly *Laphria saffrana,* and on one occasion I observed another species of robber-fly that had captured a *Cicindela sexguttata* which was quite as bulky as itself. The little *Cicada hieroglyphica* was not uncommon in a certain belt of pines that we passed through, but we found none below or above that level. The natives call the cicadas "jar flies," and the big lumbering *Passalus cornutus* beetle is their "best bug."

Near the top of the mountain there were a few *Lycæna ladon* of large size flying from one to the other of two tall squaw huckle-

berry bushes, and on the top ridge itself I captured one *Neonympha geminata*. It rained so often that butterflies were not at all common.

We had a rival collector in a humming bird that we saw on one occasion fly often out from a tree, remain poised in the air for a time, and then return to its perch. Upon a nearer approach it was discovered that the bird was collecting small insects that were flying before the wind. It was not at all afraid of us, but kept up its entomological pursuits while we stood close by.

Where a number of *Yucca filamentosa* plants had taken possession of a field in the valley, much to the disgust of the owner, we found many of the interesting little moths known as *Pronuba yuccasella*. When we jarred the tall heads of flowers the little moths would fall in numbers into the umbrella along with much water deposited by a passing shower. We became so muddy and bedraggled among these yucca plants that we took to a large brook, shoes, trousers and all, for the purpose of getting somewhat cleaner. That night it was so cold that the warmth of a roaring log fire built in an ample chimney place was most welcome.

On warm evenings we placed our lamps on the piazza and thus collected a considerable number of species. The active bug, *Sirthenea carinata*, was one of those so captured, and we also found it a restful way of collecting after our efforts afield, and our almost daily wetting by the rain.

NEW SPECIES OF NOCTUIDÆ FOR 1910. NO. 1.

By John B. Smith, Sc.D.,

New Brunswick, N. J.

Noctua corrodera, new species.

Head, thorax and primaries a deep rusty red-brown. Disc of thorax tending to become paler, more yellowish. Primaries with costal area more or less yellowish, veins tending to become blackish outwardly, with accompanying yellowish shadings. Median lines marked by small costal spots only. Ordinary spots indicated by vague yellowish blotches. Median and submedian vein narrowly black marked throughout, the others tending to become so beyond the location of the t. p. line. S.t. line a more or less obvious series of pale interspaceal dots near to and almost parallel with outer margin. A diffuse pale terminal line. Secondaries in the ♂ white, the veins outwardly